

**3.1.14 Unavoidable Significant Adverse Impacts - Summary**

Unavoidable significant adverse impacts are discussed under each resource heading. To summarize the analysis, the following unavoidable significant impacts will occur from the Project:

- ▶ Air Quality - Regional air quality will be degraded through dust and emissions from mining activities.
- ▶ Visual Quality - Some viewsheds of the Project are significantly impacted including modification of ridgeline and filling of several ravines in the NFSA.

Mitigation measures for these impacts have been proposed in previous sections. Implementation of the measures will reduce the magnitude of the impacts; however, impacts are still considered significant even after mitigation.

### 3.1.15 Cumulative Impacts

#### 3.1.15.1 Description of Cumulative Projects

The cumulative project baseline for this EIS includes future projects that are either under construction, approved, or in the design phase. Subsequent mine-out of Cut 4 of TMC's Concept Plan is also addressed. The primary source for these projects was the County Department of Regional Planning's CTRAC list of proposed projects in the Mint Canyon and Agua Dulce quadrangles. The projects chosen from the list for evaluation were based on the type of environmental impact evaluated and the location and extent of probable impacts. It should be noted that a substantial number of other proposed projects, primarily residential and commercial, exist within the region. The majority of new development projects filed with the County are located to the northwest and northeast of the Project site. Other proposed mining-related projects are located in the vicinity of the Project site. Previous projects are reflected in the baseline description of existing conditions in Section 3.1. Table 3.1.15-1 lists the cumulative projects considered for this Project, and Figure 3.1.15-1 shows the approximate locations of these projects.

The disturbed acreage from the cumulative projects, including the 232-acre TMC Surface Mining Plan, totals approximately 4,618 acres. The proposed residential, commercial, and industrial projects will develop approximately 3,062 acres and result in 2,316 residential units. Other mining operations within the vicinity of the Project will potentially affect approximately 1,556 acres. Therefore, this cumulative analysis considers a mining operation that represents 14 percent by area of a total of 1,556 acres proposed for future mineral extraction.

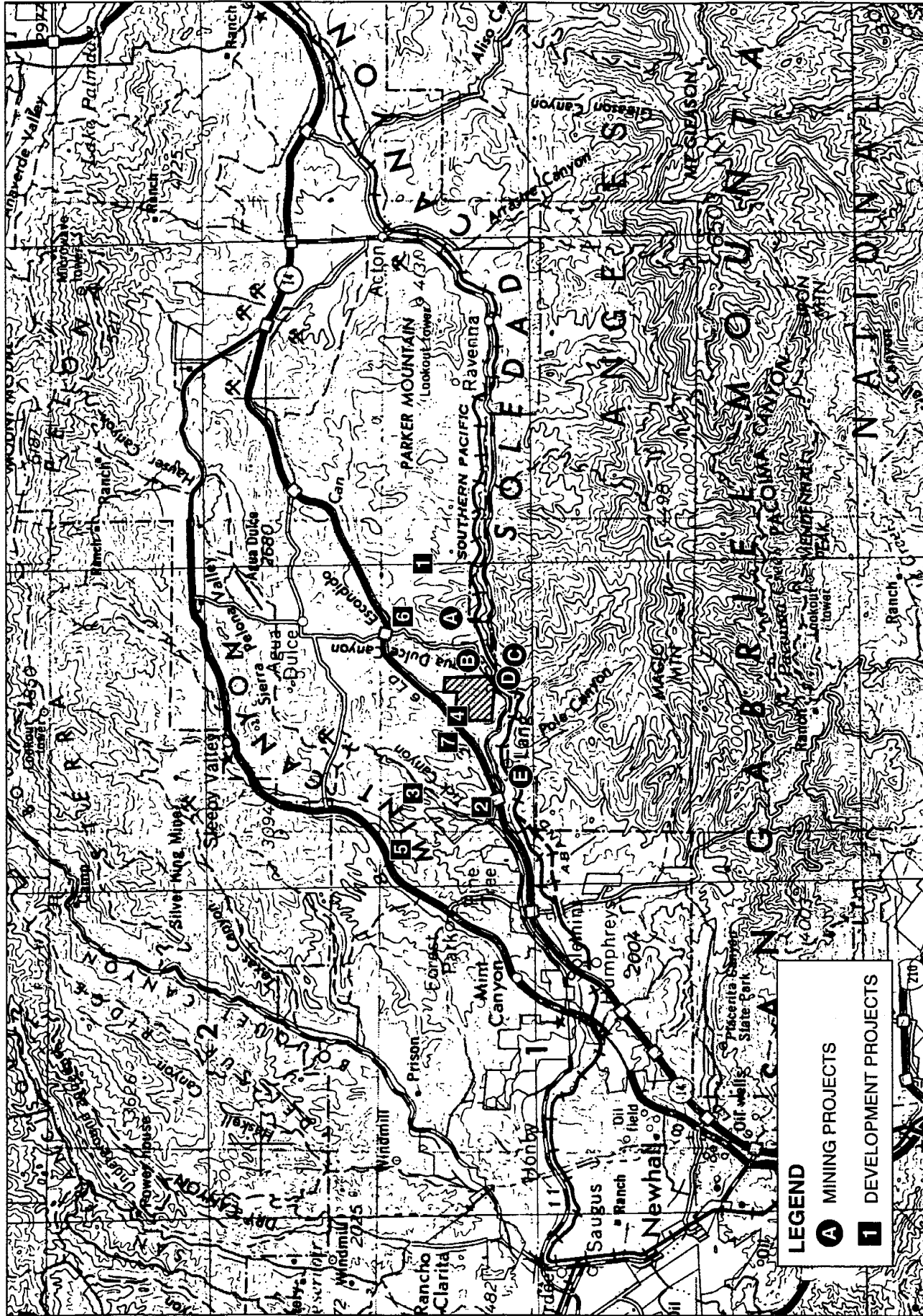
The Project's generalized mine plan (Concept Plan) is designed to excavate the deposits in four mining cuts. This generalized mine plan accommodates potential future mining at the site of up to 7.9 million tons beyond the 56.1 million tons of product proposed by the Project (64 million ton total) due to geotechnical constraints in designing the Project's mining cuts. TMC does not own the minerals on the site but rather has rights to mine the site pursuant to the Federal Contracts entered into with the Federal Government, which owns the minerals. The Federal Contracts limit TMC's rights to mine the site to 56.1 million tons over 20 years and thus serve as the basis for defining the scope of the Project.

Nonetheless, because the mining plan can accommodate additional mining, the cumulative impacts of potential future mining are analyzed in this section. The impact analysis methodology in this EIS is based on production rates for mining over time (e.g., a certain number of truck trips are required to mine a specific amount of material over a certain time period). The analysis assumes that production rates would not increase should additional mining occur but rather would constitute a continuation of an existing production rate for the amount of time it would take to mine the additional material. Based on a typical production of approximately 4.1 million tons of material per year, it would take approximately 2 years to mine this quantity at the site. The scope of mining at the site would not be expanded.

Table 3.1.15-1

## SOLEDAD CANYON/TMC CUMULATIVE PROJECT LIST

Map No.	Project Description	Project No.	Acres	Units	Status	Last Act									
Project	Transit Mixed Co. - Surface Mining and Batch Plant on 232 AC within 500-AC site and additional mining	91165	232	--	P	Current									
A	CalMat Co. - Agua Dulce Quarry, SEA, EIR required	91307	1,183	--	P	Inactive									
B	Curtis Sand and Gravel - Mining, EIR required	90508	168.3	--	IA	Inactive									
C	C.A. Rasmussen Co. - Continued surface mining Reclamation Plan for existing mine, SEA	94129 96204	205 N/A	-- N/A	IA P	Inactive Current									
D	Industrial Mineral Fillers - Grinding nonmetallic ore	97002	20	N/A	A	Current									
E	CalMat Sweetwater - Surface mining permit and reclamation/interim management plan (idle)	96144	N/A	N/A	A	Current									
1	616 SF, 1 Park Lot, 405 Lots on 943 AC, 622 Total Lots, SEA, HM, Zoning, IS - Rio Dulce Development, EIR required	90501	1,116	616	P	1994									
2	437 Units on 424.5 AC (approximately 200 units built and occupied)	87357	425	437	A	1991									
3	A-21 to R1 5K, 70 SF Lots, 1 PF Lot on 43 AC, HM	86258	43	70	A*	Current									
4	650 MH Units on 211.3 AC, Draft EIR prepared (Bee Canyon)	93147	211.3	650	P	Current									
5	30 SF Lots on 312 AC in A2-1	91057	312	30	IA	1991									
6	14 SF Lots on 155 AC in A1-1	91084	155	14	IA	1991									
7	499 SF Lots on 548.1 AC in HM, A2-1 (Shadow Pines), EIR required	90115	548	499	IA	1998									
Total			4,618.6	2,316											
KEY TO TABLE															
Project Description		Areas/Units	Activity	Status											
AC = Acres		NA = not available	* = Under Construction	A = Approved											
C = Commercial				P = Pending											
HM = Hillside Management				IA = Incomplete											
IS = Initial Study				Application/Information											
MF = Multi-Family															
MH = Mobile Home															
OS = Open Space															
PF = Public Facility															
RV = Recreational Vehicle															
SEA = Significant Ecological Area															
SF = Single Family															
STP = Sewage Treatment Plant															
Please refer to Figure 3.1.15-1 for project locations. Source: County of Los Angeles Department of Regional Planning (1994, 1995, 1996, 1997)															
Note: Numerous past and pending land use case files in the project area were examined for cumulative impact considerations. For purposes of the cumulative analysis, it is assumed that projects which have had no land use permit file activity in the past 3 years are dead even though they may still be listed in the County's computer system. It is common for the County to consider land use permit projects dead if there has been no contact with the County for 2 years or more. It is common for the County to automatically extend tract map case files indefinitely, regardless of activity. Projects considered dead include 89017, 89555, 90016, 90409, and 91193. The water rights application for project 90501 was recently withdrawn.															



CUMULATIVE PROJECTS  
Figure 3.1.15-1

Miles  
0 2.7

Source: County of Los Angeles  
Dept. of Regional Planning, 1997

### 3.1.15.2 Cumulative Effects and Mitigation Measures

The following section outlines cumulative impacts and mitigation measures. TMC will be responsible for mitigation of impacts associated with its Project.

#### Geotechnical

Impacts resulting from grading for construction of residential, commercial, and industrial project areas will alter the topography in the Project vicinity. Cut-and-fill operations will be necessary to prepare street grades, lots, and pads for development. Because of the rugged terrain in the area, grading could be substantial. The cumulative impact would be significant.

Site development and construction will be required to comply with the County standards for required soils and geologic investigation report recommendations to mitigate geologic hazards on a case-by-case basis.

Grading and mining activities will also increase the potential for significant erosion of soils from the area. The overall cumulative impact is considered significant. For cumulative projects, these landform impacts can be reduced to less-than-significant levels through site-specific soils, engineering, revegetation, and erosion controls as required by SMARA and the County. The TMC Project will contribute to this overall impact in direct proportion to other projects in the cumulative baseline. Project mitigation measures to reduce the cumulative effect include mining and reclamation procedures to stabilize slopes, runoff, and erosion from the Project, as outlined in Section 3.1.1.3. The Project will be monitored throughout mining and reclamation by a registered civil engineer or geologist.

For cumulative projects, other geologic issues, such as landform and seismic impacts, are identified through the requirement for geotechnical soils investigations during individual project design and mitigated to comply with the County standards on a site-specific basis during construction.

As the need for mineral resources increases, so does their depletion through surface mining. As mining continues, fewer mineral resources are available for future development. However, no significant cumulative impact will occur to mineral resources (PCC aggregates) through mining occurring and proposed because these resources are designated for this purpose, and such designations include calculations for resources within mineral resource P-C Regions such that adequate resources are present for future needs (CDMG 1985).

#### Water Resources

The cumulative projects are located near the boundary in the Acton Valley and Eastern Subunits of the Santa Clara Valley. Locally, the growth of both mining and other projects in the area will have the potential to significantly impact both local surface and groundwater resources. TMC has applied to appropriate 322 acre-feet per year and anticipates using as much as 453 acre-feet per year of riparian water for a total estimated usage of as much as 775 acre-feet per year. The

TMC Project will contribute to the decrease of flows in the Santa Clara River during low-flow periods.

Mitigation measures for water resources require coordinated management plans as well as individual project-specific measures. In 1991, water purveyors organized as the Upper Santa Clara Water Committee to develop and formally adopt a WSCP and submitted the plan to the SWRCB, Division of Water Rights (in Appendix C2 of this EIS). The WSCP details contingency plans in the event of water supply shortages. The plan calls for the gradual reduction of water utilization, depending on the occurrence and severity of water shortages.

Other potential mitigation for potential significant cumulative impacts on water resources includes use of imported water, state-mandated water conservation, use of treated wastewater, and groundwater recharge. Residential development projects in the area could potentially have access to imported water.

Proposed upstream extractions will be required to provide riparian habitat protection and demonstrate adequate resource availability for the proposed extractions. As discussed in Section 3.1.2.1, these conditions are imposed and enforced by the SWRCB and CDFG.

The proposed Cal Mat project is located upstream of the TMC Project along Agua Dulce Creek and the Santa Clara River. Cal Mat filed an application, subsequently amended, to appropriate 600 acre-feet per year from Agua Dulce Creek and the Santa Clara River.

The Industrial Mineral Fillers (IMF) nonmetallic ore grinding facility is proposing water use for dust control at a rate of 5,000 gpd. It is anticipated that other mineral extraction projects will either use onsite wells or request water appropriations.

The Project will use an average of 442 AFY during Phase 1 and 746 AFY during Phase 2. The amount of water proposed for usage by the IMF operation is less than 5 AFY and would not present a significant cumulative impact. However, with the addition of the proposed usage for the CalMat project, cumulative water extractions for this portion of the river would increase to 1,042 AFY during Phase 1 and 1,346 AFY during Phase 2 of the Project. As noted in Section 3.1.2.3 Water Resources, impacts on downstream riparian habitat due to the Project could be significant, if pumping were to continue unabated during dry months of dry years. With no mitigations, the addition of the proposed CalMat extractions could result in significant cumulative impacts on the UTS habitat as well as on the Project.

However, NEPA, CEQA, the Endangered Species Act and California water law, require that projects which may result in significant impacts, must mitigate those impacts to protect endangered species and riparian and permitted users with superior water rights. The Project has committed to a Water Shortage Contingency Plan and mitigation measure WR1, involving the Habitat Monitoring and Protection Plan, to meet these requirements for impacts related to Project extractions. Based on the extraction volume proposed for the CalMat project they also will need to develop measures to mitigate their project impacts. Since TMC has a superior water permit application, TMC would have a priority of water rights and use over CalMat and any other potential future water rights applicant. It should be noted that any subsequent water

rights applicant would be required to mitigate for potential effects to UTS habitat, other endangered species, riparian uses, and other superior water rights.

With regard to the Western Portion of the Acton Valley Subunit, total cumulative usage absent mitigations is estimated to range from 2,250 AFY in Phase 1 to 2,600 AFY in Phase 2. This includes the previously noted projects as well as users in the town of Agua Dulce and residences located along Agua Dulce Canyon and Soledad Canyon Road to Ravenna. Usage for these current residences is estimated at 1,200 AFY (1,200 users at 1 AFY each), with estimated growth to 1,400 AFY by 2010 at a growth rate of 1.5 percent per year. As noted in Section 3.1.2.2, recoverable water for the Western Portion of the Acton Valley Subunit is estimated at 2,092 to 6,275 AFY with a mid-point of 4,184 AFY. Thus, this total estimated usage is well below the mid-point of estimated recoverable water for the watershed. Once appropriate mitigations are incorporated for any subsequent potential cumulative impacts will not be significant.

Also, the SWRCB will declare if and when the river is fully appropriated. No such declaration has been made with regard to the Santa Clara River system. Therefore, surplus water is available for beneficial use. Furthermore, all permits to appropriate water from the Santa Clara River system must be approved by the SWRCB, which must consider overall cumulative impacts on that system prior to issuing any such approvals.

TMC will mitigate potential cumulative impacts on water resources through implementation of a WSCP for the Soledad Canyon site. Additionally, TMC will implement a Habitat Protection Plan for sensitive ecological habitats that are dependent on water resources. The habitat protection plan provides for specific actions to reduce Project water use in relation to key aquatic/riparian habitat indicators. Furthermore, TMC will abide by all conditions of its SWRCB permit to appropriate available water from the Santa Clara River for regulation at the regional level.

### **Flood**

The velocity and quantity of runoff will be increased by cumulative projects, mainly nonmining/nonindustrial residential and commercial developments. This will involve a potentially significant increase in downstream peak flows, creating additional flooding concerns and a significant cumulative impact. The TMC Project will not contribute substantially to this impact because it will not create impervious surfaces and will control surface runoff by installing and maintaining desilting/debris basins and culverts as discussed in Section 3.1.3.3.

Cumulative mitigation for flood protection is a regional issue that will require integrated planning of both downstream flood control structures as well as upstream retention basins.

### **Water Quality**

Water resources originate as precipitation within the watershed. The amount of TDS occurring in the water resources naturally increases as water flows over or percolates through soils. Water

naturally dissolves minerals present in the soil with the result that downstream waters are usually higher in TDS than upstream waters. Additionally, any contaminants in or on the soil because of manmade conditions may also be dissolved and/or transported by running surface water or percolating groundwater, increasing the pollutant loading of the water.

### **Groundwater**

The watershed area of the upper Santa Clara River from the community of Acton to the community of Lang is the cumulative baseline for consideration of cumulative groundwater quality impacts. The groundwater in the area west of Lang generally shows lower TDS than surface water at the same locations; therefore, it is thought that the Santa Clara River may provide limited contribution to recharge of the alluvial aquifer in the vicinity west of the Project. Minimal contribution to cumulative impacts on downstream groundwater quality would occur either from project water extraction or surface runoff. Emphasis in relation to cumulative impacts is given to surface mining projects in the Soledad Canyon area; however, new residential development projects located in the communities north and northeast of the Project site have also been considered. Most of the groundwater recharge to the Acton Basin occurs within the watershed of the upper Santa Clara River that is upstream of the TMC Project. Cumulative projects upstream can affect groundwater quality in the vicinity of the TMC Project and within the Acton Basin as a whole if pollutants are discharged to areas of high groundwater permeability. Implementation of mitigation measures on a project-by-project basis will be necessary to reduce these potentially significant impacts on groundwater quality to a level of nonsignificance.

### **Surface Water**

During storm events and for extended periods following wet season storms, surface waters naturally pick up and carry sediment, often measured as TSS. Manmade projects can increase TSS and other pollutant loadings of surface waters if mitigation measures are not developed and implemented.

Development of cumulative residential and commercial projects will create impervious surfaces (such as driveways, roadways, parking areas) that can impact downstream water quality by contributing stormwater pollutants typical of urban uses entering drainages to the Santa Clara River. Discharge from a potential wastewater treatment plant planned for the proposed Rio Dulce Ranch development would be required by the Los Angeles Region of the CRWQCB to maintain the water quality in the Santa Clara River. Siltation resulting from construction practices and exposed ground surfaces also may affect downstream water quality. In addition, unregulated activities in the Santa Clara River floodplain, as described in Section 3.1.12 (Land Use), could contribute to cumulative impacts on surface water through potential increased sedimentation. It is anticipated that water quality impacts related to sedimentation will be controlled by the use of erosion control practices during construction and that storm drain systems will be constructed in accordance with the County's General Plan to mitigate impacts on local drainage patterns to a level of less than significant. Avoidance or mitigation of impacts

from unregulated activities would be provided by coordination with the appropriate regulatory agencies.

Surface mining and industrial projects in the Project vicinity also have the potential to significantly impact surface water quality from grading activities that increase the potential for sedimentation of the Santa Clara River. Present and reasonably foreseeable future mining in the Project vicinity and along the upper Santa Clara River corridor will primarily involve surface mining for aggregate products. The primary potential cumulative impact of new surface mineral extraction activities within the watershed would increase sedimentation of the Santa Clara River from surface runoff down graded hillsides or mined slopes along Soledad Canyon. The TMC Project will contribute to the impact on water quality in the Project vicinity in a minor way from site runoff because the desilting/debris basins designed for the Project will minimize the amount of total suspended solids released into the Santa Clara River and its tributary drainages. Under current state and local mining regulations, it is foreseeable that other mining operations will be required to meet the same siltation control design criteria as the TMC Project. Therefore, no cumulative impact on surface water quality would occur from regulated mining operations.

The mining and industrial projects, including TMC, must develop on SPCCP for controlling accidental spills from ASTs. Storage tanks for fuels and chemicals will be monitored regularly, and all spills will be contained and cleaned up in accordance with state and federal requirements. Residential and commercial development should be required to install traps and other structures to improve the quality of urban runoff. Upon appropriate inspection and implementation of mitigation measures, significant cumulative impacts on water quality expected from projects in the vicinity would be minimized.

### **Noise**

Noise produced during construction activities will increase noise levels in the Project vicinity on a short-term basis. Because of the mountainous terrain and small number of sensitive receptors in the area, other local projects are not expected to produce overlapping construction noise; therefore, cumulative construction noise impacts are not considered significant.

Of greater concern than onsite construction noise is the noise produced by cumulative project-generated traffic because impending residential development as well as mining activities will raise traffic levels along Soledad Canyon Road. Cumulative traffic volumes were used as the basis for the Project analysis in Section 3.1.5. Mitigation measures presented in Section 3.1.5.3 will reduce the impacts to less-than-significant levels for the Project. Other major projects to be situated within the area or that use Soledad Canyon Road will require separate environmental studies to determine their fair shares of the necessary mitigation.

### **Public Services**

Cumulative development in the Project area will increase the demand for public services, especially fire services, because of the rugged terrain in the Project vicinity and classification as a high fire hazard area. In addition, more stations and accompanying equipment may be required to service cumulative projects.

The County has not yet implemented its plans for upgrading fire protection in the area because of its limited budget. Therefore, cumulative impacts on fire protection are considered adverse and potentially significant. No other significant impact on public services is anticipated. It is expected that various project applicants will cooperate with the County to assure that sufficient fire services are provided. TMC will provide onsite water tanks for firefighting as well as fire prevention training for employees and adherence to all uniform fire codes. Additional ways that the required level of services can be provided are through mitigation fees (which TMC will be paying as a per-square-foot building fee) and for residential and commercial developments, the dedication of property for location of additional emergency service facilities. These measures will reduce any potentially significant impacts to levels of nonsignificance.

### **Air Quality**

The Project area is out of attainment for both O<sub>3</sub> and PM-10 particulate matter. Construction of the cumulative projects will further degrade local air quality, as well as the air quality of the SCAB and MDAB. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, the greatest cumulative impact on the quality of regional air cell will be the incremental addition of pollutants, mainly from increased traffic from residential developments and the use of heavy machinery and trucks associated with all of the proposed mining projects. Sources of dust will be from the mining projects, as well as earth movement from nonmining project development. Emissions associated with the mining of the additional 7.9 million tons beyond the Project's contracted limit would be expected to remain similar to the Project's Phase 2 emissions.

Mitigation measures for the Project presented in Section 3.1.7.3 will aid in mitigating these impacts to the extent feasible and can be applied to all cumulative projects. Mitigations for mining include all vehicular equipment being kept in tune with timing retarded 2 degrees and high-pressure fuel injectors installed, catalytic converters being used on all gasoline-powered equipment, low-emission diesel fuel being used, and diesel engines being substituted by electric or gasoline engines where feasible. Additionally, internal combustion engines will not be left idling for prolonged periods, and construction will be curtailed on high smog days. Daily watering of active construction areas and dirt roads will be required to reduce fugitive dust. Impacts are reduced but remain significant.

Mitigations for residential/commercial developments will primarily come from traffic congestion management and other regional air quality strategies.

While the overall effectiveness of the mitigation measures discussed above is still likely to be limited, their aggressive adoption will at least attempt to reduce the overall air quality burden. In accordance with the SCAQMD methodology, any project that produces a significant air quality impact in an area that is out of attainment adds to the cumulative impact, and this cumulative impact is considered potentially significant.

### **Biota**

The development of additional mining activities in the area, coupled with residential, commercial, and industrial development, will result in a significant cumulative impact on plant

and animal resources. This cumulative impact includes the permanent loss of natural habitats from residential and commercial developments. Additional cumulative impacts on wildlife and habitats from residential developments will result from encroachment on surrounding natural habitats from human and domestic pets. Impacts from mining will include the long-term but temporary loss of natural vegetation communities and native wildlife habitat. The Project will contribute to this cumulative impact through the disturbance over the 20-year life of the Project of as much as 187 acres of natural upland vegetation including coastal sage scrub/semidesert chaparral, mixed chaparral, and coastal sage scrub.

Overall, cumulative impacts on biological resources will be best mitigated by implementing regional planning and avoiding sensitive habitats or preserving and enhancing habitats where applicable for unavoidable permanent habitat losses. Current federal, state, and local regulations require reclamation of aggregate mineral mining sites including recontouring and revegetation with appropriate plant species. Mitigation for the Project's temporary impacts on natural biological communities from mining include ongoing revegetation of the site as mining proceeds and a plan for long-term reclamation of the site through recontouring and revegetation with native plant communities. Cumulative impacts potentially remain significant because of permanent loss of natural habitats. The TMC Project will contribute only a small portion of this impact because of recontouring and revegetation of the site.

Unregulated water use and uncontrolled runoff from cumulative projects would result in a significant impact on species that use the riparian or aquatic habitat of the Santa Clara River, such as the unarmored threespine stickleback. Use of water resources is regulated by the State of California, Department of Water Resources. As previously described in Section 3.1.2.1, regulating appropriation of water resources includes consideration for the protection of instream habitats such as those occurring along the Santa Clara River. Therefore, state regulation of water resources precludes the possibility of uncontrolled water use from the Santa Clara River, and cumulative impacts will not be significant.

TMC has designed the Project to include control of surface runoff from mining operations to avoid and reduce impacts on the sensitive riparian and aquatic habitats of the Santa Clara River that are adjacent to and just downstream of the Project site. TMC has applied to the SWRCB, Division of Water Rights for a permit to appropriate water from the Santa Clara River. TMC will abide by all the conditions of its permit to appropriate water. Furthermore, TMC is committed to mitigation measures and a Habitat Protection Plan that regulate water use by monitoring the sensitive ecological habitat downstream of its production wells with specific action levels that result in protection of the sensitive habitat.

### **Cultural Resources**

Two historic archaeological sites and one historic resource were found near the Project site but will not be impacted by the Project. Two historic sites and 15 prehistoric sites have been recorded to the north and east within 1 mile of the Project site. These resources could be impacted by cumulative projects. Therefore, cumulative impacts on historic and prehistoric resources are considered potentially significant. Mitigation for cumulative impacts on cultural resources includes project-specific site surveys conducted for each area proposed for

construction, avoidance of sites, and site testing and data recovery, as appropriate under federal, state, and local requirements. The TMC Project will not impact any cultural resources as discussed in Section 3.1.3.2.

### **Visual Qualities**

Development of cumulative projects will create adverse and potentially significant impacts on visual qualities in the Project vicinity. The mix of projects include present and proposed mining (including the TMC Project), other industrial operations in the immediate area, and continued growth of residential development toward the site. Short-term impacts will result from temporary disturbance to scenic settings from construction. Long-term impacts will result from the alteration of the landscape from the present mountainous/rural atmosphere to that of an increasingly more urban setting in the greater area through construction of commercial and residential developments. Cumulative projects, depending on size and location to viewsheds, will create impacts considered adverse and significant. Visual impacts will be at least partially mitigated on an individual basis with techniques such as screening, reclamation, and revegetation. The TMC Project creates adverse and significant impacts on views from Soledad Canyon, Bee Canyon, and the Antelope Valley Freeway due to modification of ridgelines. Reduction of visual quality impacts will be achieved for the Project through the Reclamation Plan for recontouring and revegetation on the site.

Development of cumulative mining and residential projects will incrementally increase the amount of nighttime lighting used in the Project area and is potentially significant. The increase in nighttime light pollution is a function of land use development occurring within a large region and is unavoidable. Some measures adopted by public agencies to control light pollution include

- ▶ use of low-pressure sodium street lighting and selective requirements for street lighting in residential subdivisions,
- ▶ prohibition of nighttime outdoor advertising, and
- ▶ implementation of light control ordinances, which include lighting curfews on outdoor public events and typical lighting specifications for industrial, commercial, and residential land use.

### **Traffic**

Traffic impacts were analyzed for both Phase 1 (year 1999) and Phase 2 (year 2009) cumulative scenarios based on those projects listed in Table 3.1.15-1. A growth factor of 1.5 percent/year was also added for the analysis. Fifty percent of the cumulative projects traffic was assumed for the Phase 1 analysis and 100 percent for the Phase 2 analysis.

Significant cumulative traffic impacts were found to result in Phase 1 and Phase 2 for the intersection of Soledad Canyon Road and the Antelope Valley Freeway and the easternmost segment of Soledad Canyon Road, assuming all projects are constructed. The cumulative traffic projected for Soledad Canyon and Agua Dulce Canyon Roads and the Antelope Valley Freeway

will have an incremental adverse impact that is not considered significant for the roadway and freeway sections analyzed.

The traffic analysis presented in Section 3.1.11 considers cumulative impacts and addresses the mitigation measures necessary to reduce the cumulative impact to a level that is not significant. These include restriping approaches from Soledad Canyon Road to the freeway ramps and providing traffic signal controls when actual conditions warrant the signals. Pavement resurfacing may also be required along Soledad Canyon Road by all projects generating truck traffic. TMC will pay its fair share of all improvements.

### **Land Use**

Development of cumulative projects will influence the present atmosphere of undeveloped hillsides, passive open space, and scattered low-density rural residential and recreational uses along the Santa Clara River corridor that currently typify the Soledad Canyon area. Hillside mining activities have occurred on portions of the Project area in the past, and various industrial uses, including surface mining, have occurred within the river corridor, particularly in the vicinity of Lang Station. Cumulative residential projects have the potential for inducing growth within neighboring areas and encouraging land uses that may not be compatible with mineral extraction uses. Such incompatible land use would result in significant cumulative impacts. In addition, General Plan amendments and zone changes may be necessary to accommodate the proposed urban uses. Development of incompatible uses on or adjacent to lands that are recognized by the State of California as containing significant mineral resources will encourage removal of these lands from potential aggregate production. Thus, the best and highest use for the lands that contain significant mineral resources would not be realized. The TMC Project will not contribute to any cumulative land use impacts because the Project site is designated as a Regionally Significant Mineral Resource Area by the state and is consistent with federal resource plans. Furthermore, the site has already been mined since 1968.

The County General Plan outlines the land use goals and policies that will govern the magnitude of growth of the area. If cumulative development conforms with the appropriate land use plans and policies relative to mineral resource production, cumulative impacts on land use will not be considered significant.

### **Public Health and Safety**

Cumulative impacts associated with anticipated growth in the Project area include several health and safety considerations, especially in association with the number of mining projects proposed. Public access should be restricted for all mining projects. In addition, mining areas should be fenced and signs posted restricting access to project roads and mining sites. Compliance with all OSHA, MSHA, and applicable County fire codes will mitigate impacts on a project-by-project basis. No cumulative impacts on health and safety are expected.

**3.1.16 Relationship Between Local Short-Term Uses of Man's Environment and Long-Term Productivity**

If the TMC Project is implemented, short- and long-term impacts will occur on a local basis. Short-term impacts will occur during construction of mining facilities and continue throughout each phase of mining. Portions of surrounding lands will be temporarily impacted by dust, noise, and air pollution. In addition, loss of habitat will impact wildlife. Potential impacts may occur to the Santa Clara River habitat from water erosion during mining. These impacts will be mitigated to the extent possible.

The long-term effect of Project implementation is the gradual conversion of the site from vacant land to a mining area, which includes removal of 56.1 million tons of product. Implementation of the Mining and Reclamation Plan will mitigate long-term impacts on the extent feasible. However, the existing characteristics of the physical and visual environment will be impacted. Consequences of mining include increased traffic volumes, additional noise created by the increased traffic and heavy equipment used, incremental degradation of the regional air cell, and increased natural resource consumption.

However, implementation of this Project will provide a source of aggregate that is in demand for public and private construction. The Project will ultimately support a form of long-term productivity that appears to be compatible with human needs in the region.

**3.1.17    Irreversible/Irretrievable Commitment of Energy Supplies and Other Resources  
if the Project is Implemented**

Implementation of the TMC Project would result in the following primary environmental changes:

- ▶ permanent commitment of land that will be physically altered by mining for provision of aggregate resources,
- ▶ commitment of approximately 56.1 million tons of nonrenewable resources, and
- ▶ the energy used for Project construction, as well as the energy consumed in the mining process, represents permanent energy commitments. However, without the Project, it is anticipated that a greater amount of energy would be consumed to transport construction aggregate a greater distance to the Project market areas.